

# **Opioid Analgesics: The Epidemiology of Misuse and Advice on Prescribing**

**Clinician Outreach and  
Community Activity (COCA)  
Conference Call  
August 17, 2010**

# Objectives

**At the conclusion of this hour, each participant should be able to:**

- ❑ Discuss the prevalence of misuse of prescription opioid analgesics
- ❑ Identify factors that increase the risk for overdosing on opioid analgesics
- ❑ Discuss precautions in prescribing opioids for chronic non-cancer pain
- ❑ Describe opioid responsiveness limitations
- ❑ Compare and contrast “morphine equivalent dose (MED)” for single and multiple drug treatments
- ❑ Explain the components of a time-limited and functional outcome directed opioid trial

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# TODAY'S PRESENTERS

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**National Center for Injury Prevention**  
**and Control - CDC**

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**Clinical Associate Professor**  
**Medicine, Anesthesia & Pain Medicine**  
**University of Washington School of Medicine**

# Opioid Analgesics: Epidemiology of Misuse



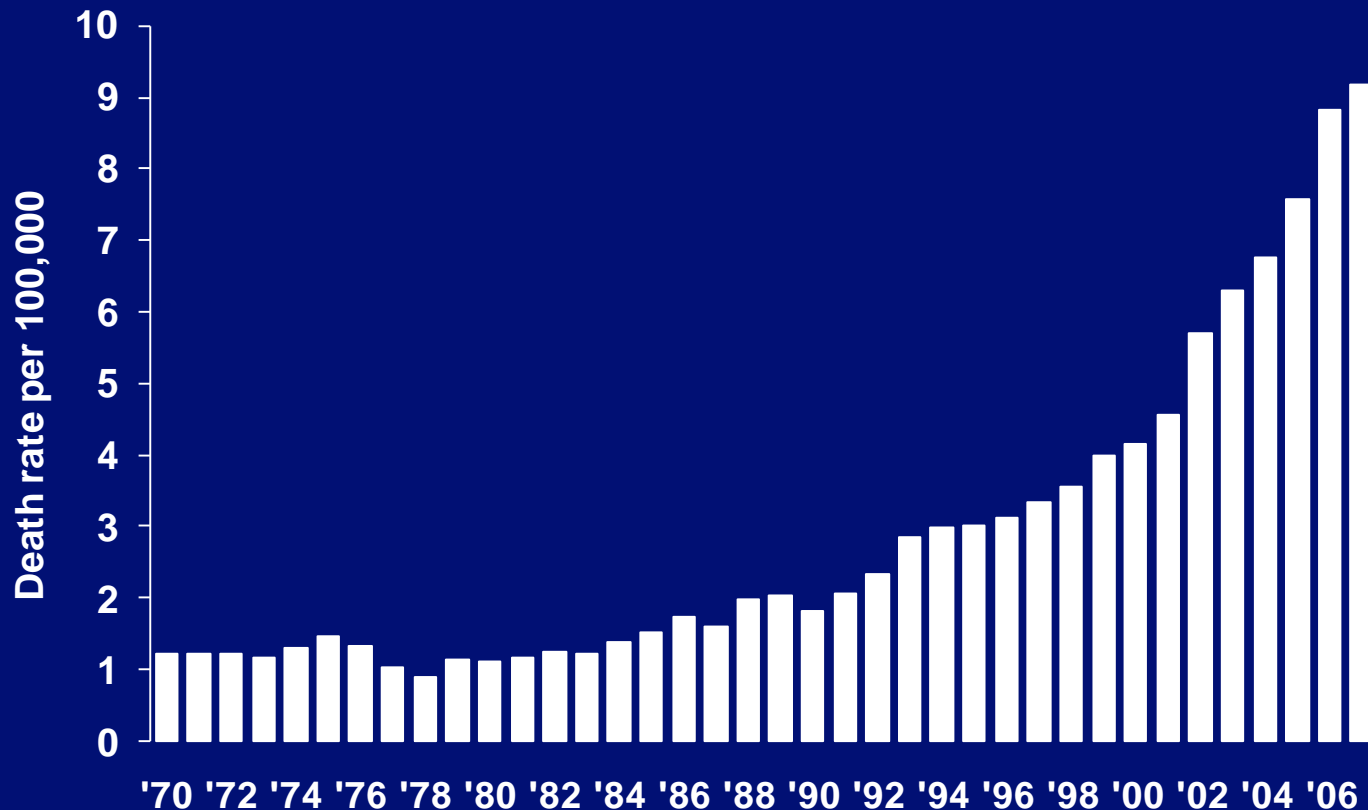
**Len Paulozzi, MD, MPH**

National Center for Injury Prevention and Control

## Outline of presentation

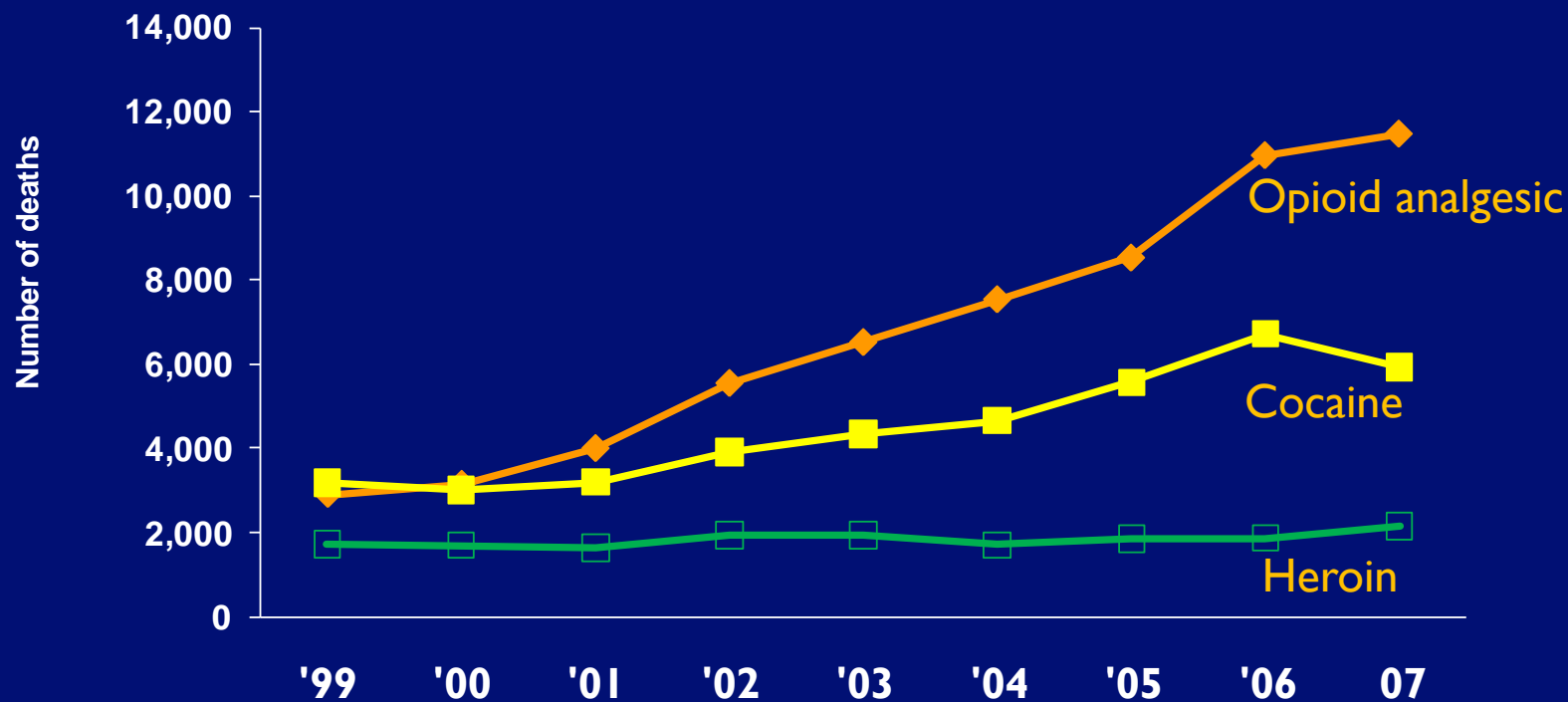
- ❑ Background
- ❑ Demographic risk factors
- ❑ Behavioral risk factors

# Rate of unintentional drug overdose death in the United States, 1970-2007



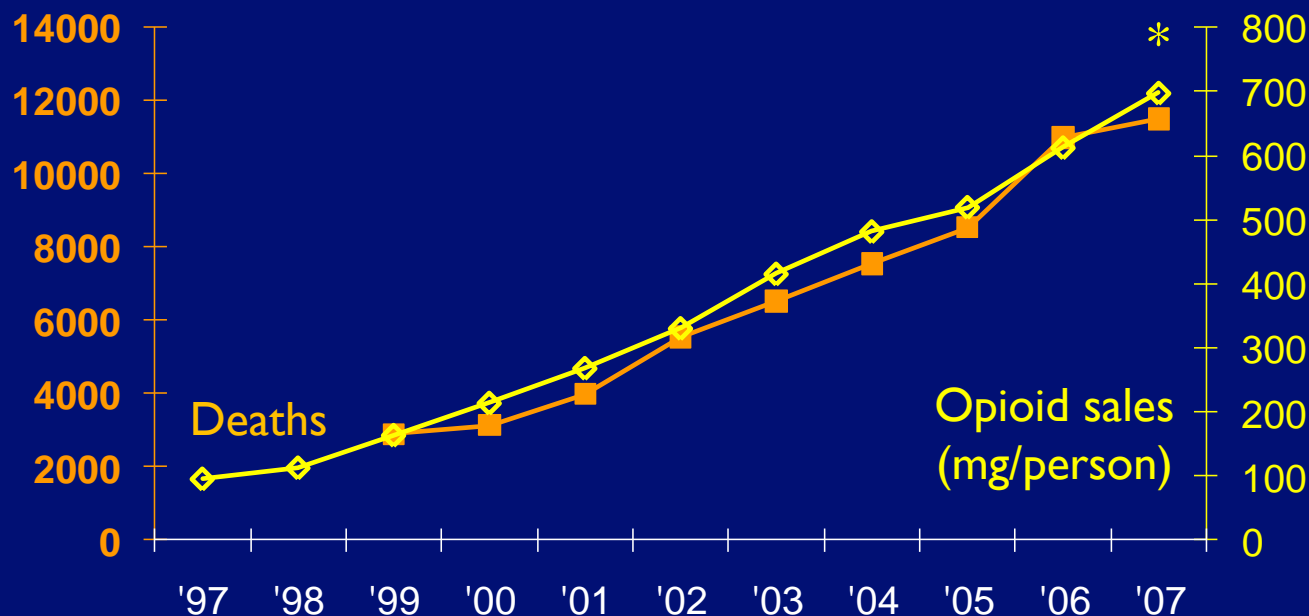
Source: National Vital Statistics System

# Unintentional overdose deaths involving opioid analgesics now exceed the sum of deaths involving heroin or cocaine



Source: National Vital Statistics system, multiple cause of death dataset

# Unintentional overdose deaths involving opioid analgesics parallel per capita sales of opioid analgesics in morphine equivalents by year, U.S., 1997-2007



Source: National Vital Statistics System, multiple cause of death dataset, and DEA ARCOS

\* 2007 opioid sales figure is preliminary.

## Definitions

- ❑ **“Prescription drug abuse means taking a prescription medication that is not prescribed, or taking it for reasons or in dosages other than as prescribed.” (NIDA)**
- ❑ **“Nonmedical use, or ‘misuse,’ is defined as use of medications without a prescription of one's own or simply for the experience or feeling the drug causes.” (SAMHSA)**

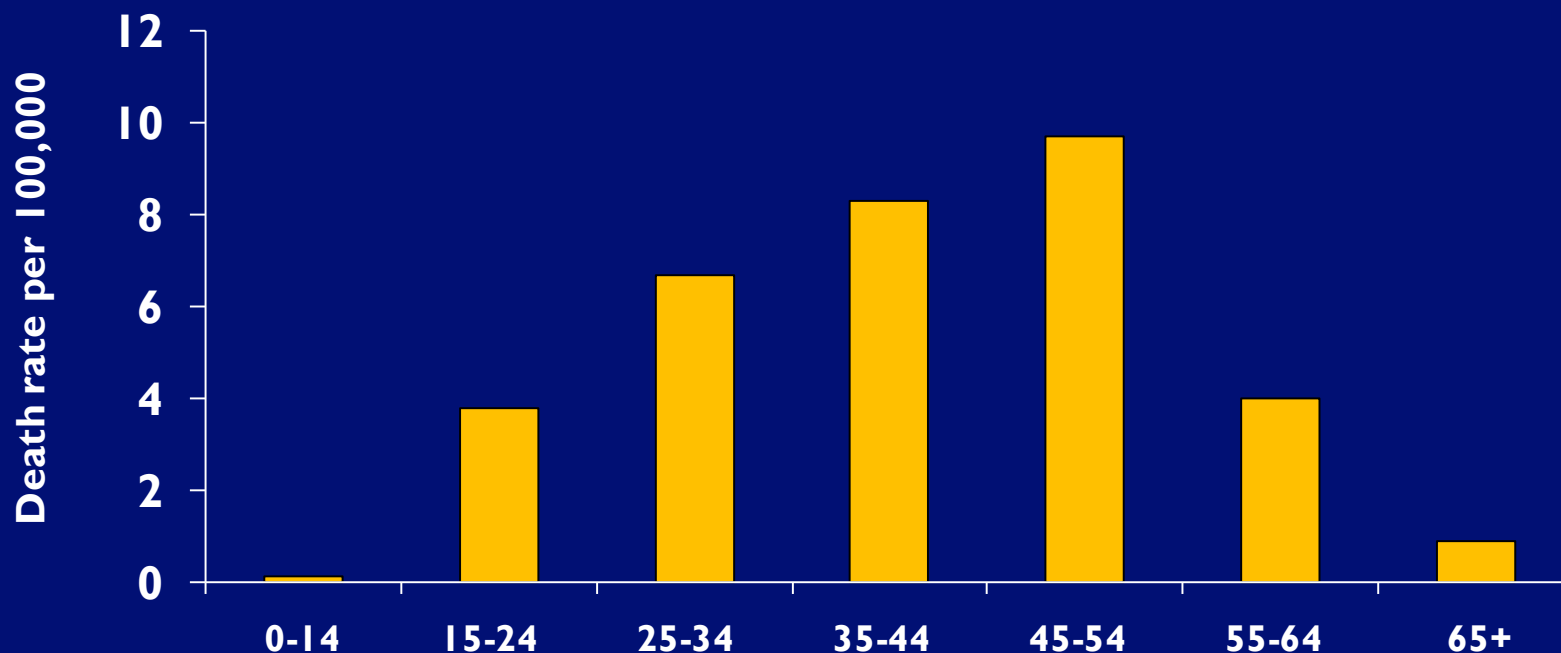
## Definitions used in this presentation

- ❑ **ED and survey data adhere to formal definitions**
- ❑ **Formal definitions are difficult to use with mortality data**
  - E.g., drug overdose deaths might include people taking too much for purely medical reasons without a prescription or mistakes in prescribing. The reason is often unknown or undocumented.
- ❑ **Working assumption for mortality data is that most deaths represent misuse or abuse, since death from unintentional ingestion or taking prescribed drugs as directed is uncommon.**

## Males are more likely to die of opioid overdose but have less regular medical use

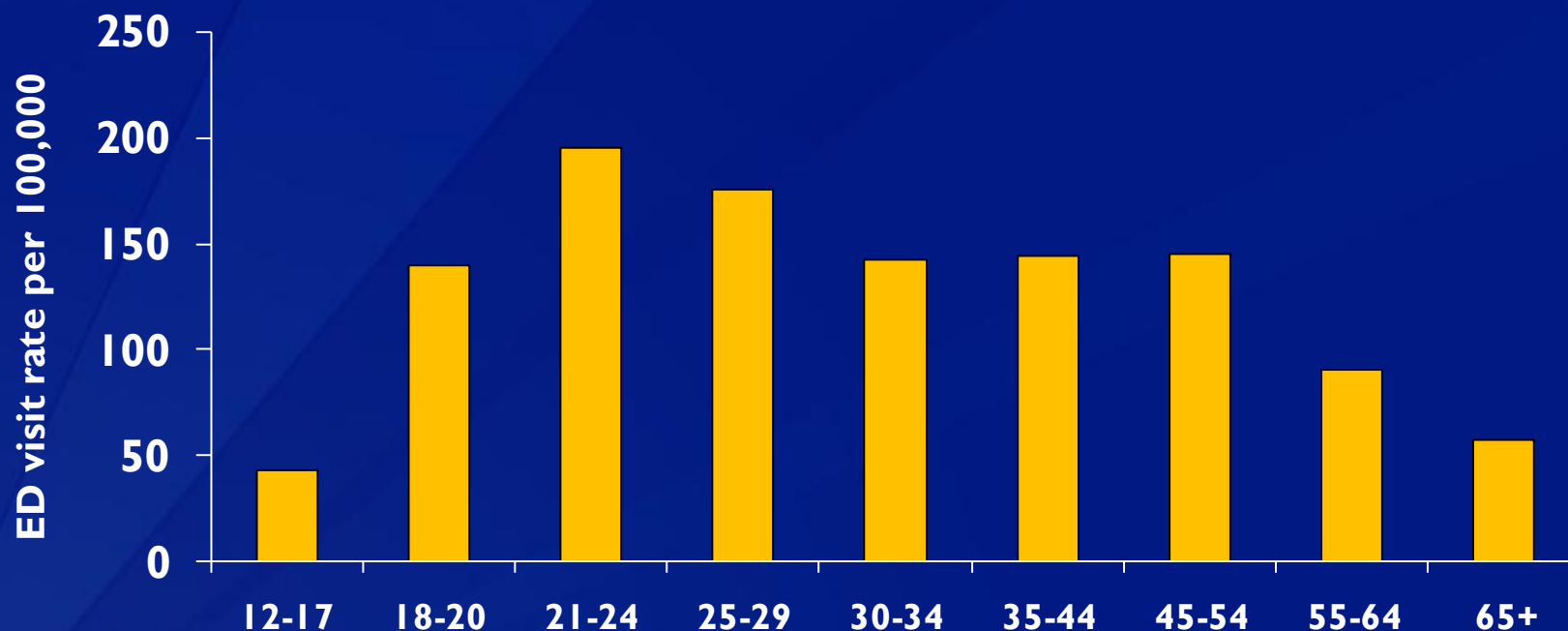
Outcome	Year/ Source	Male/Female Rate Ratio
Unintentional drug poisoning (overdose) deaths	2007 NVSS	1.9
Opioid analgesic-related drug overdose deaths	2006 NVSS	1.8
Emergency department visits for nonmedical use of opioid analgesics	2008 DAWN	1.0
Nonmedical use of prescription pain relievers in past month	2008 NSDUH	1.1
Regular use of opioid analgesics	1998- 2006 Slone	0.7

# Poisoning deaths involving opioid analgesics by age group, U.S., 2006



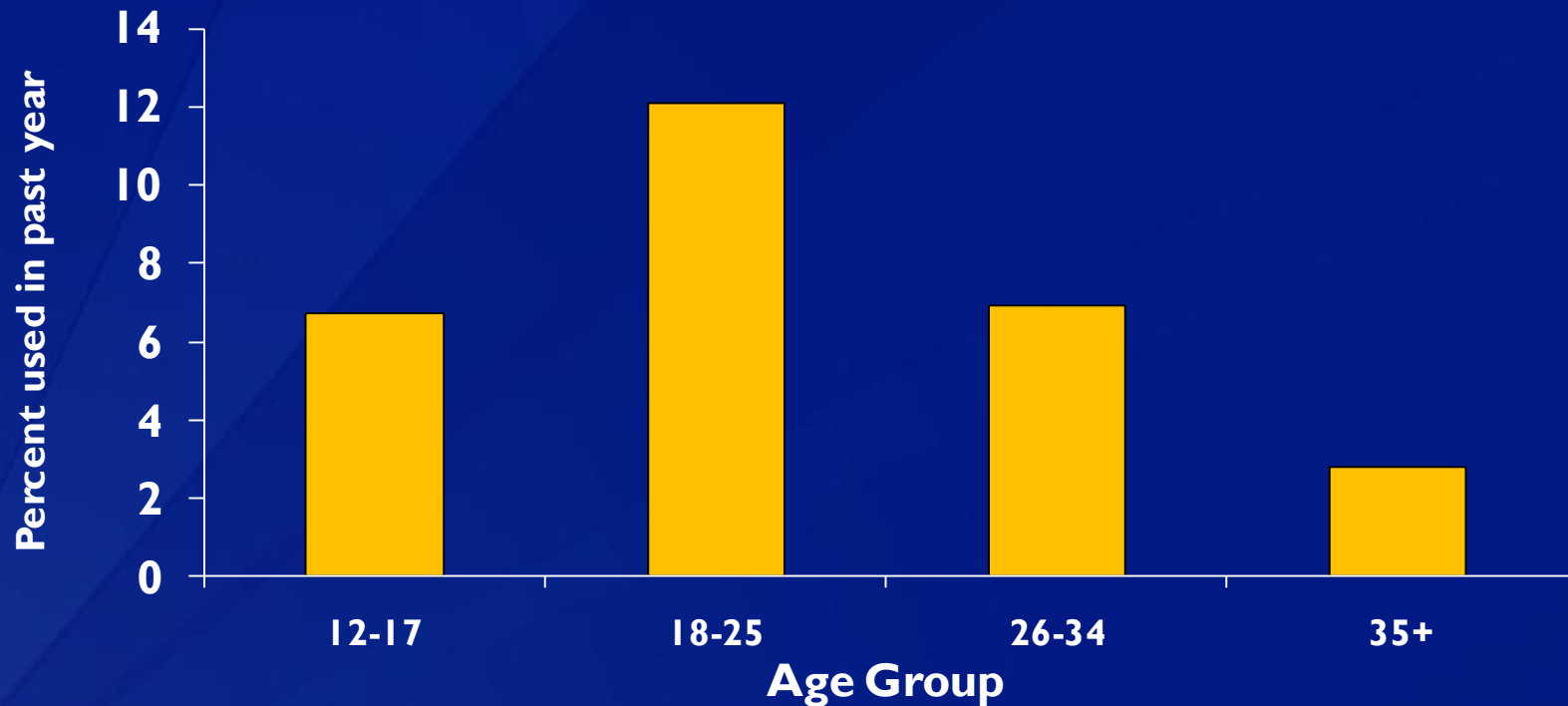
Source: National Center for Health Statistics, Data Brief, no. 22, Sept 2009

# Age-specific rates of emergency department visits for nonmedical use of opioid analgesics, United States, 2008



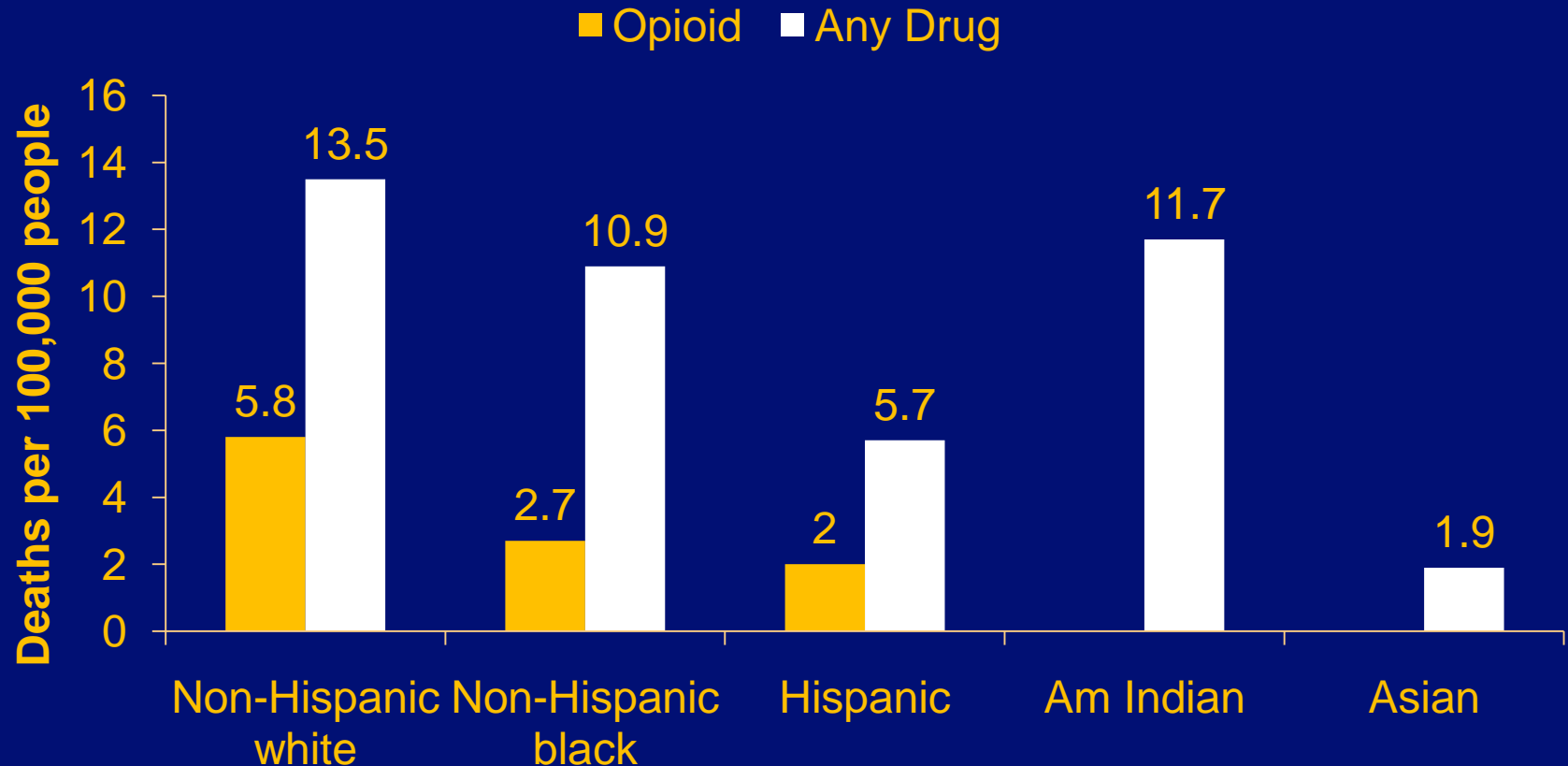
Source: MMWR 2010; 59:705-709

## Nonmedical use of opioid analgesics by age group, U.S., 2007



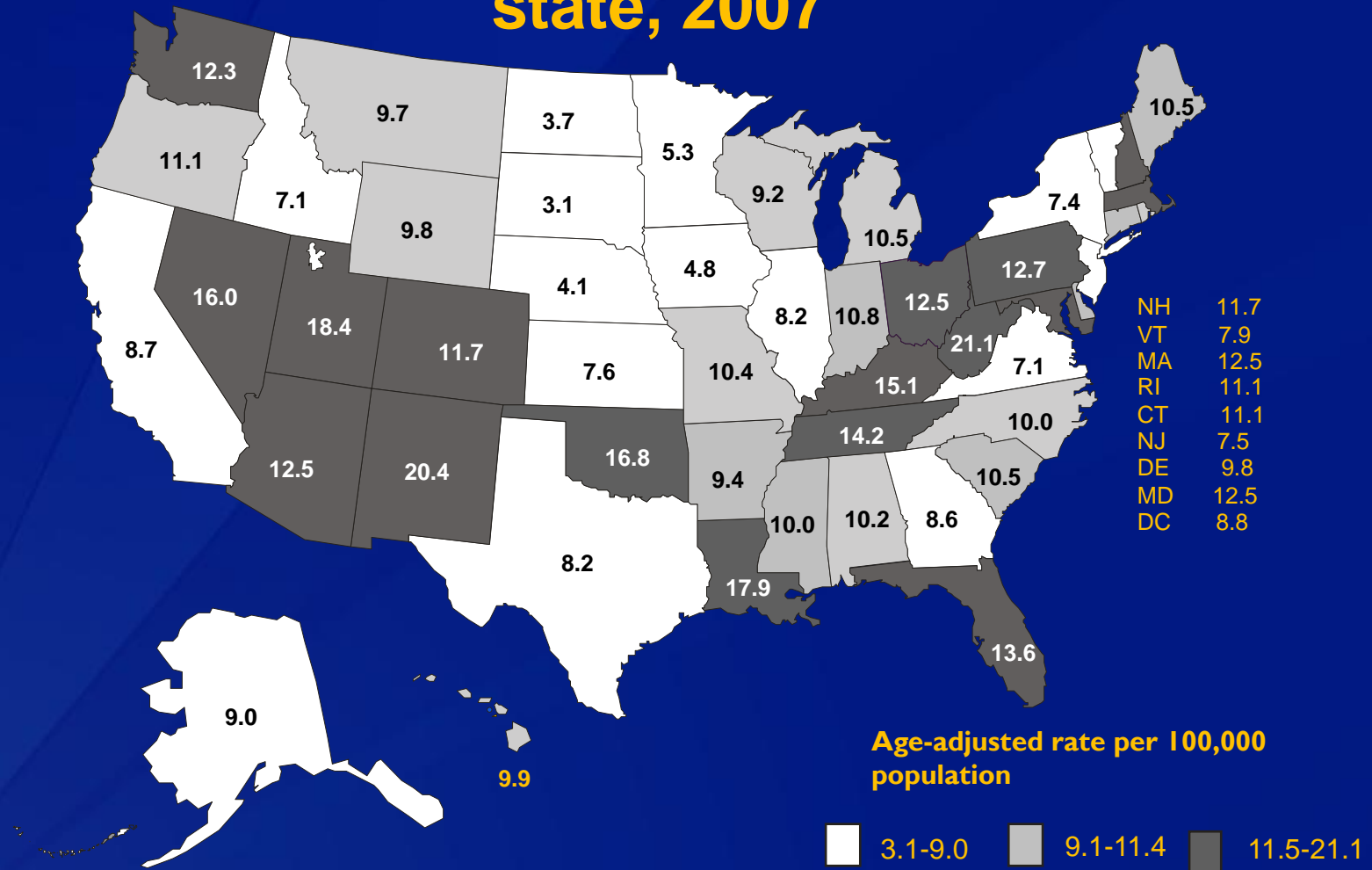
Source: 2007 National Survey on Drug Use and Health

# Drug overdose death rates by drug type and race/ethnicity, U.S., 2006



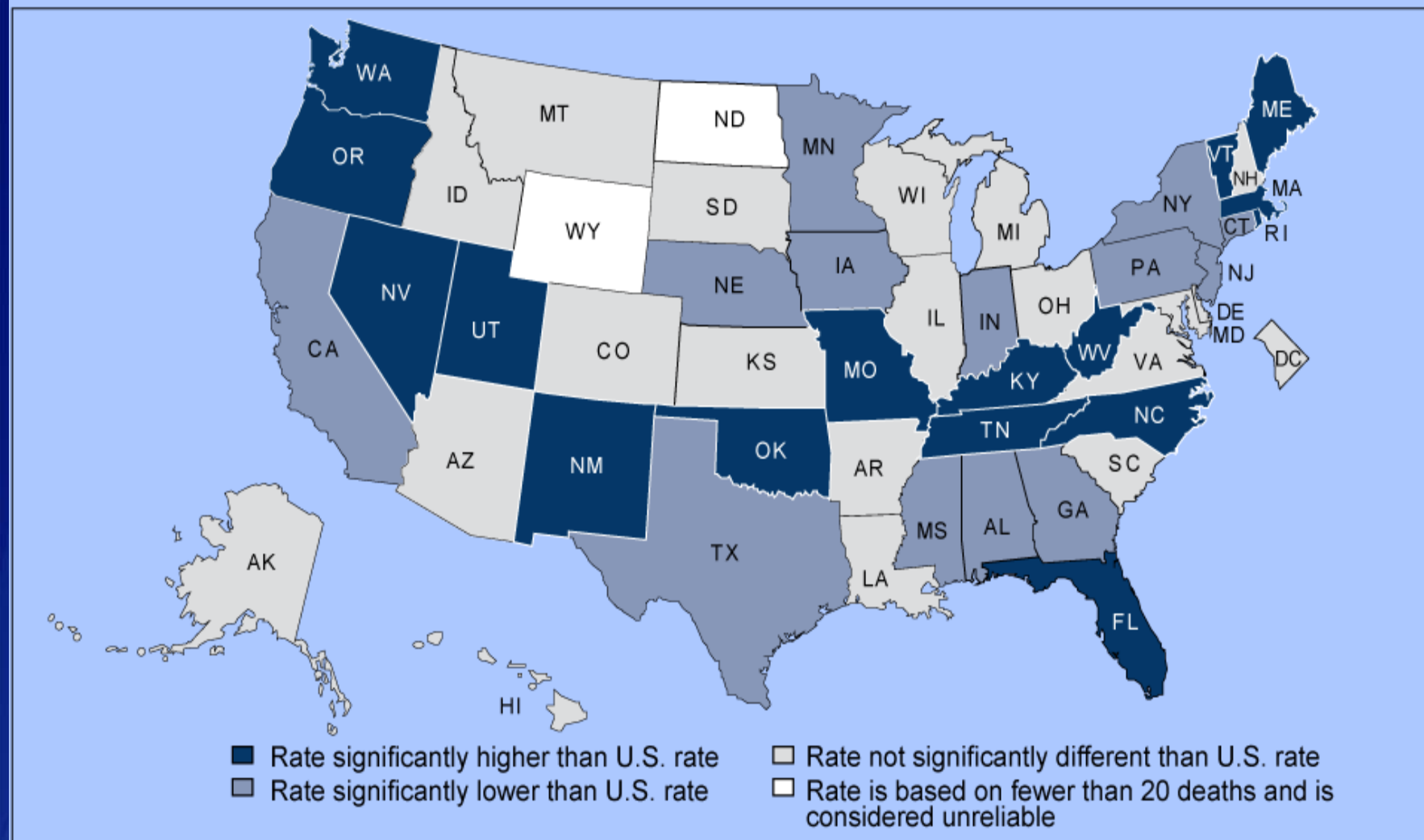
Source: National Center for Health Statistics, Data Brief, no. 22, Sept 2009, and National Vital Statistics System

# Death rates for drug overdoses that were unintentional or of undetermined intent by state, 2007



Source: National Vital Statistics System, accessed through WONDER underlying cause mortality files,

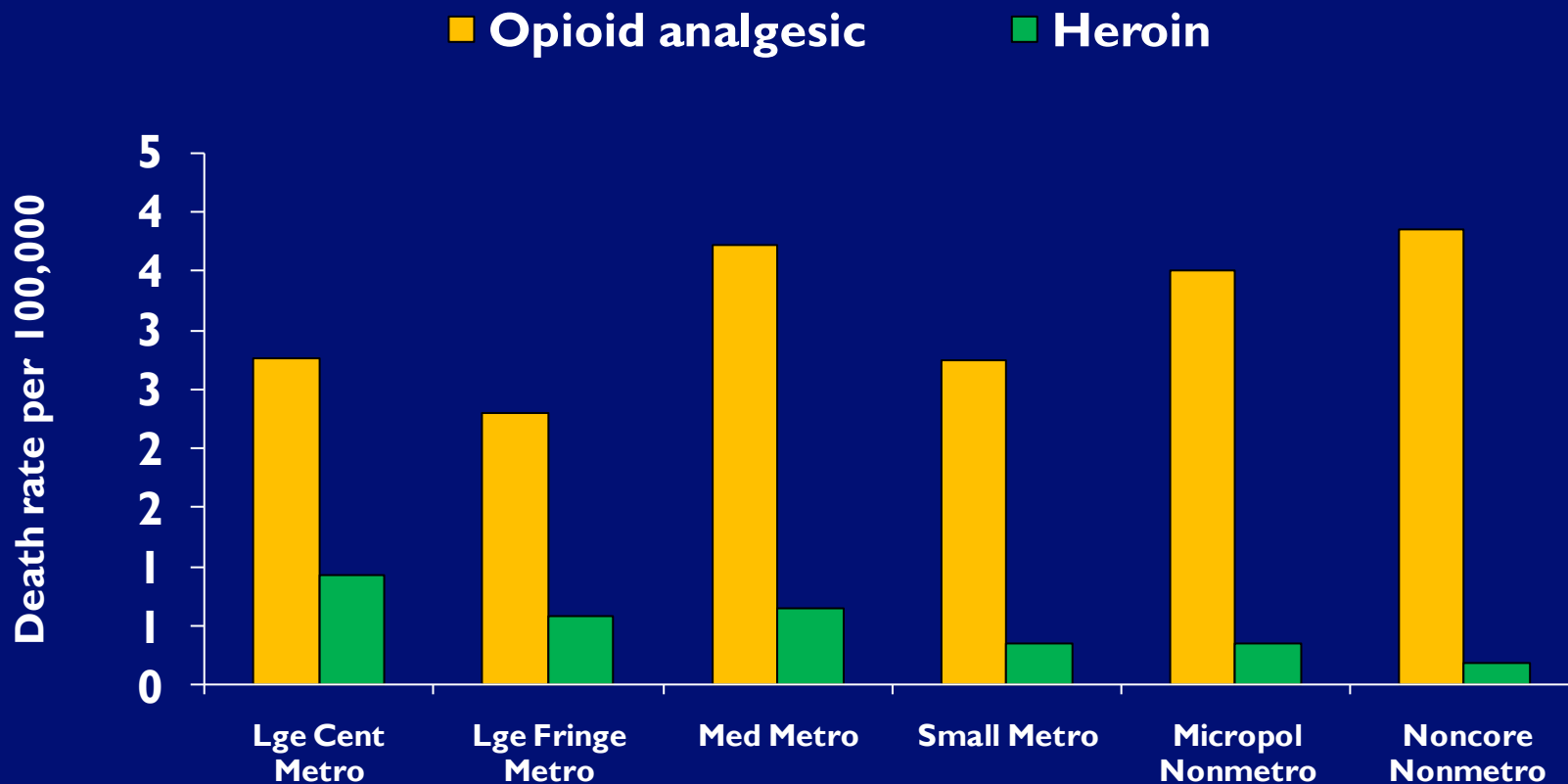
Figure 5. Age-adjusted death rates for poisonings involving opioid analgesics: Comparison of state and U.S. rates: United States, 2006



NOTE: Access data table for Figure 5 at [ftp://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Publications/Data\\_Briefs/db022/fig05.xls](ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/Data_Briefs/db022/fig05.xls).

SOURCE: CDC/NCHS, National Vital Statistics System.

# Unintentional/undetermined intent drug overdose death rates by drug type and urbanization, U.S., 2004



Source: National Vital Statistics System, accessed through CDC WONDER

## Characteristics of unintentional pharmaceutical overdose deaths, West Virginia, 2006

Characteristic	No. (%)
History of substance abuse	231 (78.3)
Other mental illness	126 (42.7)
Any rx drug involved with no prescription	186 (63.1)
Nonmedical route of administration	66 (22.4)
5+ prescribers of controlled substances/yr	63 (21.4)
Previous overdose	50 (16.9)
Total	295 (100.0)

Sources: Hall et al, JAMA, 2008 and Toblin et al, J Clin Psych, 2010

## Characteristics of unintentional opioid overdose deaths (N=278), Utah, 2008-9

Indicator of substance abuse	%
History of substance abuse	61
Signs of nonmedical use	51
---Any opioid involved without a prescription	37
History of chronic pain	82
Mental illness diagnosed by a provider	50

## **Risk factors for opioid abuse among living patients, Maine, 2005-2006**

<b>Behavior during 12 month period</b>	<b>Adjusted Odds Ratio (CI)</b>
Use of 3+ pharmacies for opioids	2.0 (1.7-2.3)
1+ early refill of an opioid prescription	6.5 (5.4-7.9)
50+% increase in opioid dosage per month in 2 consecutive months	1.6 (1.3-1.9)
12+ opioid prescriptions	2.1 (1.7-2.6)
Depression diagnosis	2.5 (2.2-2.9)

## **Limited data on opioid dosages received by people who overdose**

- ❑ **Enrollees in the Washington Medicaid Program who died of opioid overdoses had been prescribed a mean of >180 morphine milligram equivalents (MME)/day.**
- ❑ **In an HMO population, overdose risk ratio was:**
  - 1.0 at 1-19 MME/day
  - 1.4 at 20-49 MME/day
  - 3.7 at 50-99 MME/day
  - 8.9 at 100+ MME/day (Dunn, AIM 2010)

## **Summary of the epidemiology of opioid misuse**

- ❑ Risk is equal for women and greater for young people (<26) for nonfatal outcomes.**
- ❑ Men and the middle-aged dominate the fatal outcomes.**
- ❑ Non-Hispanic whites are at highest risk.**
- ❑ Risk might increase with dose, rapid dose escalation, number of prescriptions, doctor or pharmacy shopping.**
- ❑ Mental illness and history of chronic pain might be risk factors.**

# Thank You

National Center for Injury Prevention and Control  
Division of Unintentional Injury Prevention





# *Opioid Analgesics: Advice on Prescribing*

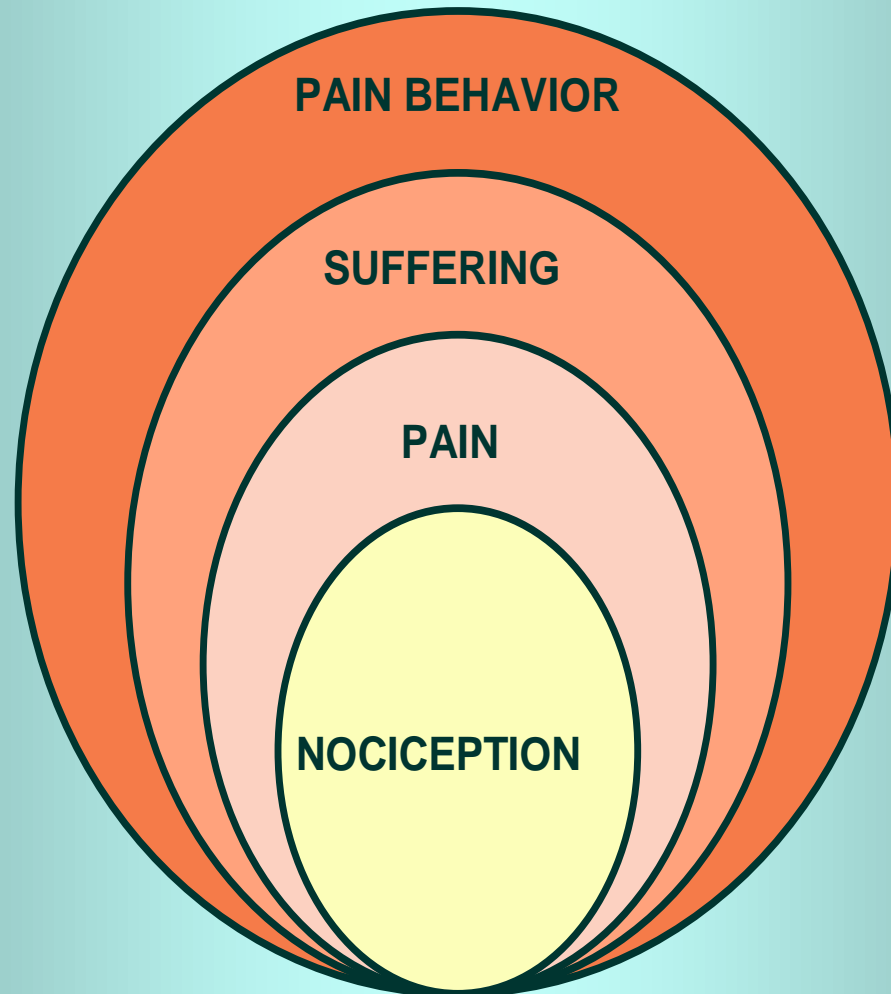
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*The findings and conclusions in this presentation are those of the author and do not necessarily represent the views of the Centers for Disease Control and Prevention*

# Objectives

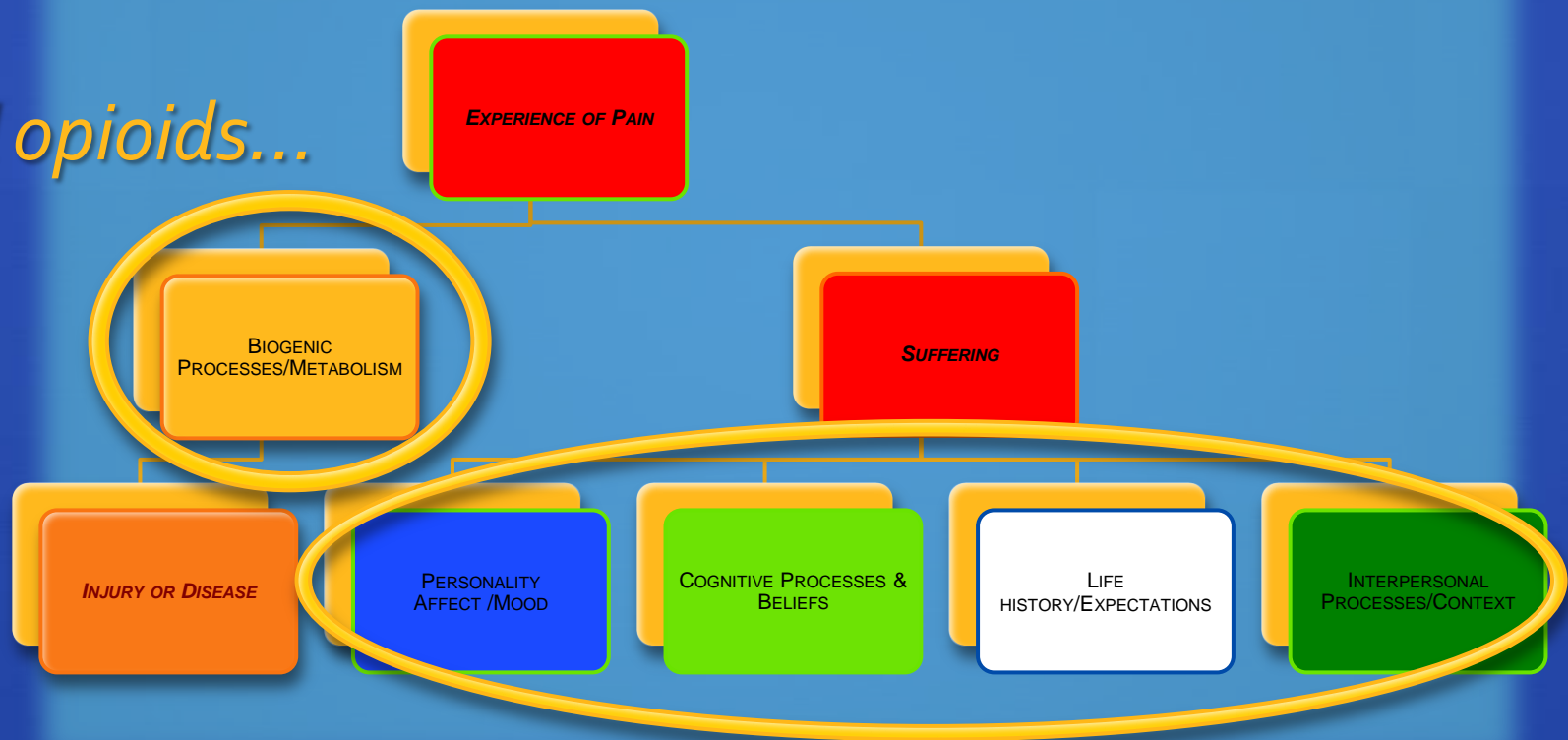
- Why and how to perform routine outcomes and risk assessment when prescribing opioids for chronic non-cancer pain.
- Understand limits to opioid responsiveness.
- Properly determine “morphine equivalent dose (MED)” for single and multiple drug treatments.
- Conduct a time-limited and functional outcome directed opioid trial.

# Loeser's Onion



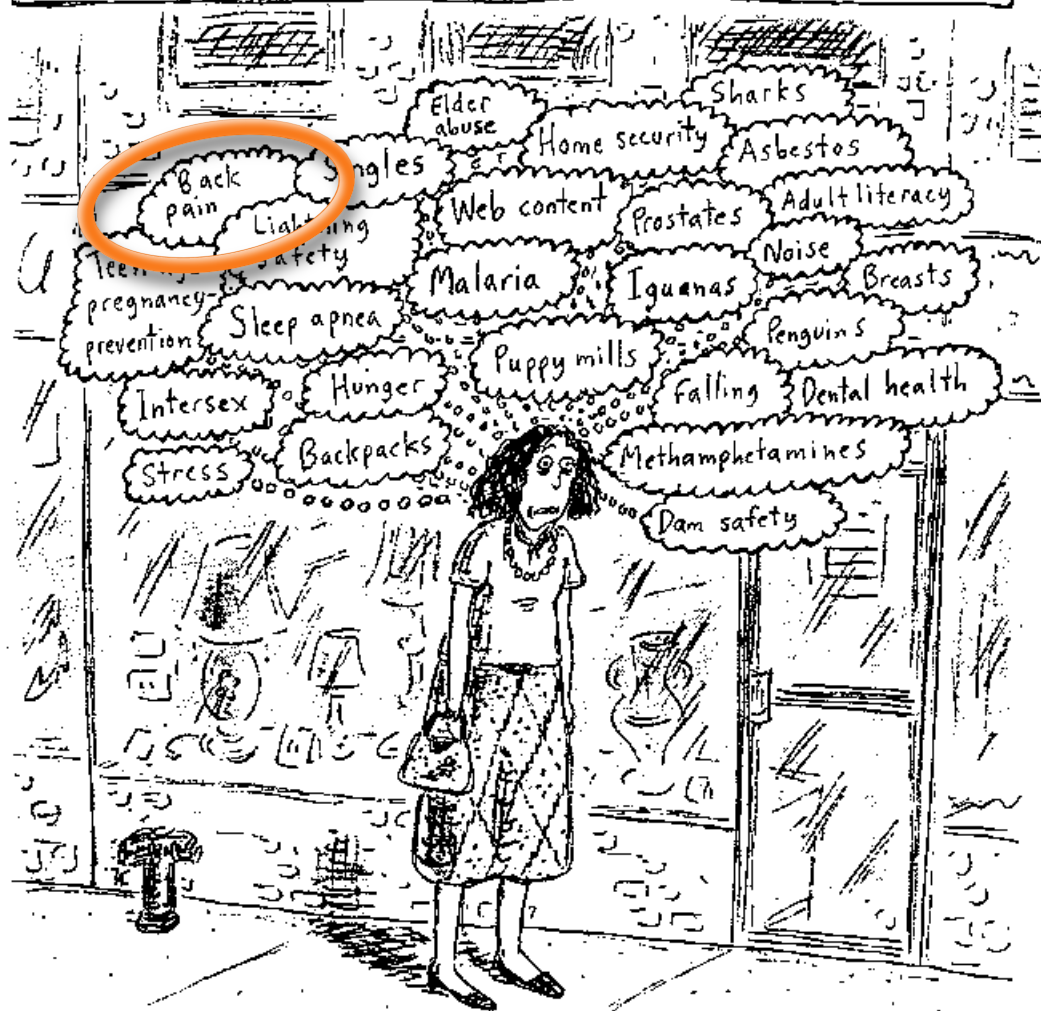
# Pain is Biopsychosocial:

*Add opioids...*



*...and effect all domains*

# NATIONAL EVERYTHING AWARENESS DAY



# MyPainProfile Report

## Identifying Information

Name: [REDACTED]  
 ID: 2497442  
 Date completed: 6/17/2010  
 Patient age: 31

## Self-Reported Pain History

Location of worst pain: spine-back neck head hands joints  
 Time since pain onset: 10 years  
 Current Tx for chronic pain?

## Current Medications for Pain Management

## Previous Medications Tried

Type:	Tried	Helped	Side effects
OTC Analgesics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NSAIDs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cox-2 Inhibitors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Opioids	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Antidepressants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anticonvulsants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Muscle Relaxants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Benzodiazepines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Other types tried:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Pain Severity in Past Week (0-10)

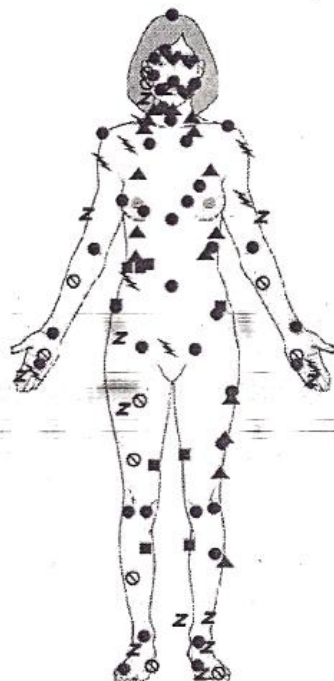
Avg: 10 High: 10 Low: 8

## Satisfied with pain relief?

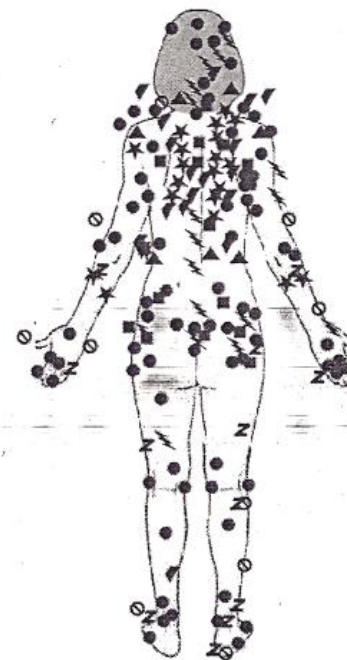
Want higher dose?

## Comments:

Early refill requests in last 6 months? No  
 Pain meds lost/stolen in last 6 months? No  
 Called clinic with pain med issues in last 6 months? No



- Deep
- Aching
- ✂ Stabbing
- ✱ Burning
- ⚡ Pins & needles
- Numbness
- ⚡ Shooting
- ♥ Throbbing
- ▲ Tightness



# Chronic Pain Treatment Responses\*

- Opioids: 30-50%
- Tricyclics/AEDs: 30-50%
- Acupuncture: 10%
- CBT/Mindfulness: 30-60%
- Physical fitness: 30-60%

\*Evidence based VAS/NRS reductions, *may* be additive

# Chronic Opioid Outcome *Monitoring* ... means *Using Measurement Tools*

---

- Ongoing Psychiatric/Psychological monitoring to assess response to treatments (Rx and CBT)
- Physical function to monitor response to rehabilitation and Rx interventions
- Aberrant/Addiction monitoring

# 6 Pain Treatment Domains

1. Pain Intensity (VAS/NRS)
2. Physical Functioning
3. Emotional functioning
4. Global improvement
5. Symptoms and adverse effects
6. Disposition: compliance/adherence

# Evidence Based Assessment Tools

1. Pain Intensity
2. Functional capacity  
Self reported goals  
Pain interference  
Roland-Morris
3. Mood measurement  
CESD-10  
PHQ-9  
GAD-7

4. Addiction Risk  
ORT, COMM,  
CAGE-AID,  
SOAPP-R,  
AUDIT
5. Urine Drug Testing  
“Rational  
interpretation”

Reisfield, Annals Clin &  
Lab Sci., 2007



## Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain:

*An educational aid to improve  
care and safety with opioid therapy*

### 2010 Update

#### What is New in this Revised Guideline

- New data, including scientific evidence to support the 120mg MED dosing threshold
- Tools for calculating dosages of opioids during treatment and when tapering
- Validated screening tools for assessing substance abuse, mental health, and addiction
- Validated two-item scale for tracking function and pain
- Urine drug testing guidance and algorithm
- Information on access to mentoring and consultations (including reimbursement options)
- New patient education materials and resources
- Guidance on coordinating with emergency departments to reduce opioid abuse
- New clinical tools and resources to help streamline clinical care

You can find this guideline and related tools at the Washington State Agency Medical Directors' site at [www.agencymeddirectors.wa.gov](http://www.agencymeddirectors.wa.gov)

[www.agencymeddirectors.wa.gov/](http://www.agencymeddirectors.wa.gov/)

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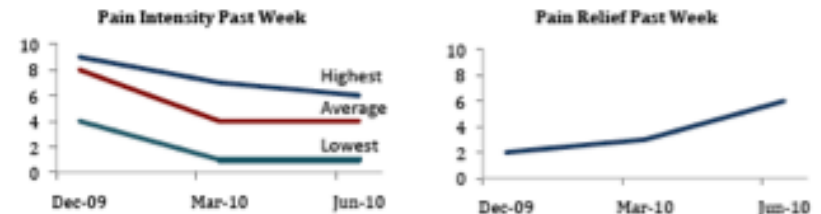
# C-PAIN™

“Comprehensive Metabolic Profile  
(CMP) ” for Pain

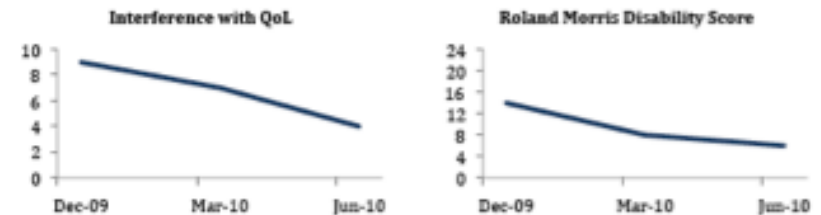
## CPAIN Patient Profile Report - Update

John Public ID: 102345643

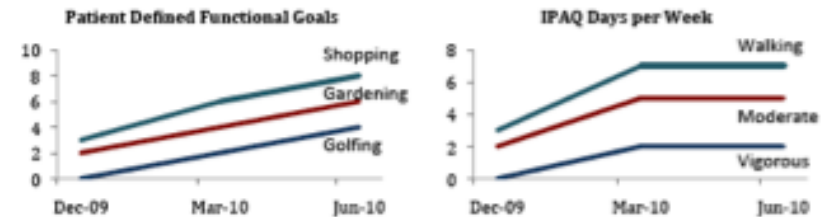
### Pain Level and Relief



### Interference with QoL and Disability



### Functional Goals, IPAQ



### IPAQ Continued



<http://www.cpain.com/>

# Simplest 2 Question Tool

## Pain intensity and interference

In the last month, on average, how would you rate your pain? Use a scale from 0 to 10, where 0 is "no pain" and 10 is "pain as bad as could be"? *[That is, your usual pain at times you were in pain.]*

No pain											Pain as bad as could be
0	1	2	3	4	5	6	7	8	9	10	

In the last month, how much has pain interfered with your daily activities? Use a scale from 0 to 10, where 0 is "no interference" and 10 is "unable to carry on any activities"?

No interference											Unable to carry on any activities
0	1	2	3	4	5	6	7	8	9	10	

# Summary of Public Domain Screening Tools

	To Screen For		Depression, Mental/ Behavioral Health	To Monitor	Tool Characteristics			
	Risk of Opioid Addiction	Current/Past Substance Abuse		Opioid Therapy	Administration	Time to Complete	Length	Available for Public Use (Cost)
Opioid Risk Tool (ORT) See Page 19.	X				Clinician or patient self-report	5 minutes	5 (yes/no) questions	X (Free)
CAGE Adapted to Include Drugs (CAGE-AID) See Page 20.		X			Clinician	< 5 minutes	4 (yes/no) questions	X (Free)
Patient Health Questionnaire 9 (PHQ-9) See Page 21.			X		Patient self-report	< 5 minutes	10 items	X (Free)
Screener and Opioid Assessment for Patients with Pain (SOAPP-R) <a href="http://www.painedu.org/soapp.asp">www.painedu.org/soapp.asp</a>	X				Patient self-report	< 10 minutes	24 items	X (Free, with licensing agreement)
Alcohol Use Disorders Identification Test (AUDIT) See Page 24.		X			Clinician or patient self-report	< 5 minutes	10 items	X (Free)
Center for Epidemiologic Studies Depression Scale (CES-D) See Page 26.			X		Patient self-report	5 minutes	20 items	X (Free)
Global Appraisal of Individual Needs Short Screener (GAIN-SS) See Page 29.			X		Staff or patient self-report	5 minutes	15 (yes/no) questions	X (Free)
Current Opioid Misuse Measure (COMM) <a href="http://www.painedu.org/soapp.asp">www.painedu.org/soapp.asp</a>				X	Patient self-report	< 10 minutes	17 items	X (Free, with licensing agreement)

\*The tools listed in this table have demonstrated good content, face, and construct validity in screening for risk of addiction and monitoring opioid therapy. Further validation studies and prospective outcome studies are needed to determine how the use of these tools predicts and affects clinical outcomes.

<b>PHQ-9 Scoring Tally Sheet</b>	Not at all	Several days	More than half the days	Nearly every day
	0	1	2	3
Little interest or pleasure in doing things				
Feeling down, depressed, or hopeless				
Trouble falling asleep, staying asleep, or sleeping too much				
Feeling tired or having little energy				
Poor appetite or overeating				
Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down				
Trouble concentrating on things such as reading the newspaper or watching television				
Moving or speaking so slowly that other people could have noticed. Or being so fidgety or restless that you have been moving around a lot more than usual				
Thinking that you would be better off dead or that you want to hurt yourself in some way				
<b>Totals</b>				
If you checked off any problem on this questionnaire so far:	Not Difficult At All	Somewhat Difficult	, Very Difficult	Extremely Difficult
	0	1	2	3
How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?				

# The Roland-Morris Questionnaire\*

1. I stay at home most of the time.
2. I change position frequently to try to get comfortable.
3. I walk more slowly than usual.
4. I am not doing any jobs that I usually do around the house.
5. I use a handrail to get upstairs.
6. I lie down to rest more often.
7. I have to hold on to something to get out of an easy chair.
8. I try to get other people to do things for me.
9. I get dressed more slowly than usual.
10. I only stand up for short periods of time.
11. I try not to bend or kneel down.
12. I find it difficult to get out of a chair.
13. It is painful almost all of the time.
14. I find it difficult to turn over in.
15. My appetite is not very good.
16. I have trouble putting on my sock (or stockings) because of pain.
17. I can only walk short distances.
18. I sleep less well because of my pain.
19. I get dressed with the help of someone else.
20. I sit down for most of the day.
21. I avoid heavy jobs around the house.
22. I am more irritable and bad tempered with people than usual.
23. I go upstairs more slowly than usual.
24. I stay in bed most of the time.

\*modified for *any* pain condition

# Opioid Risk Tool (ORT)

## Physician Form

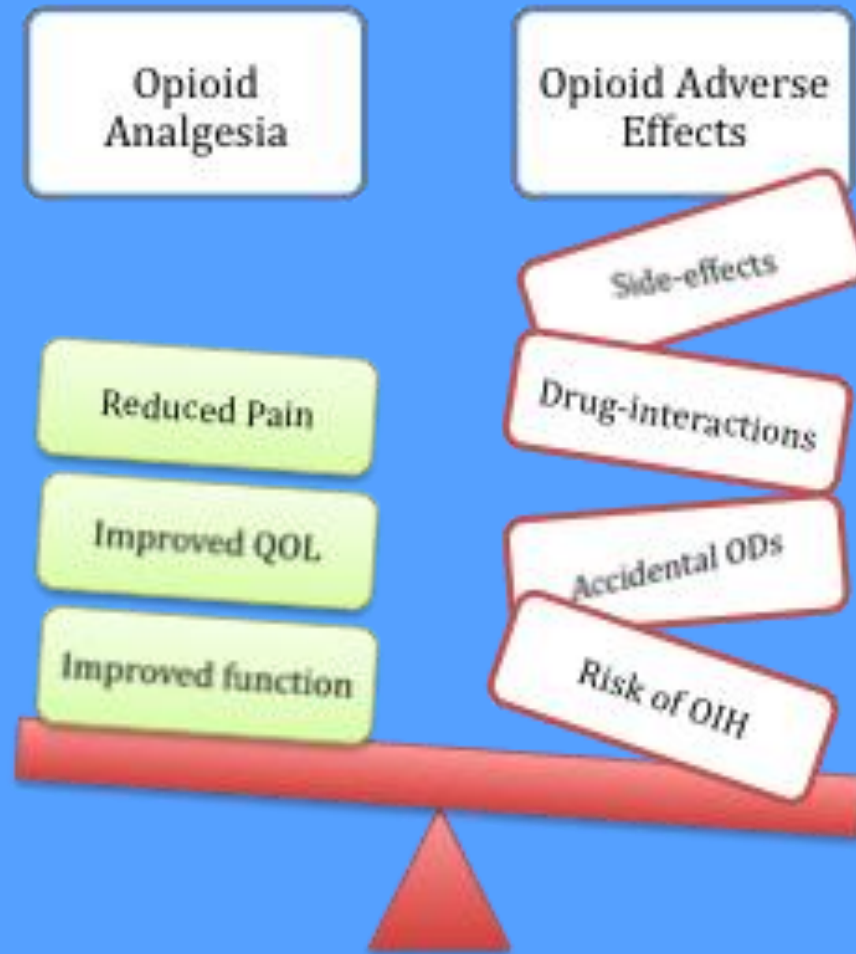
With Item Values to Determine Risk Score

Name \_\_\_\_\_

Date \_\_\_\_\_

Mark each box that applies		Female	Male
1. Family history of substance abuse	<ul style="list-style-type: none"> <li>Alcohol</li> <li>Illegal drugs</li> <li>Prescription drugs</li> </ul>	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 4	<input type="checkbox"/> 3 <input type="checkbox"/> 3 <input type="checkbox"/> 4
2. Personal history of substance abuse	<ul style="list-style-type: none"> <li>Alcohol</li> <li>Illegal drugs</li> <li>Prescription drugs</li> </ul>	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	<input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
3. Age (mark box if 16-45 years)		<input type="checkbox"/> 1	<input type="checkbox"/> 1
4. History of preadolescent sexual abuse		<input type="checkbox"/> 3	<input type="checkbox"/> 0
5. Psychological disease	<ul style="list-style-type: none"> <li>Attention-deficit/hyperactivity disorder, obsessive-compulsive disorder, bipolar disorder, schizophrenia</li> <li>Depression</li> </ul>	<input type="checkbox"/> 2 <input type="checkbox"/> 1	<input type="checkbox"/> 2 <input type="checkbox"/> 1
<b>Low (0-3)</b> <b>Moderate (4-7)</b> <b>High (≥8)</b>	<b>Scoring totals</b>	<input type="checkbox"/>	<input type="checkbox"/>

# Opioids: Balancing Risks and Benefits



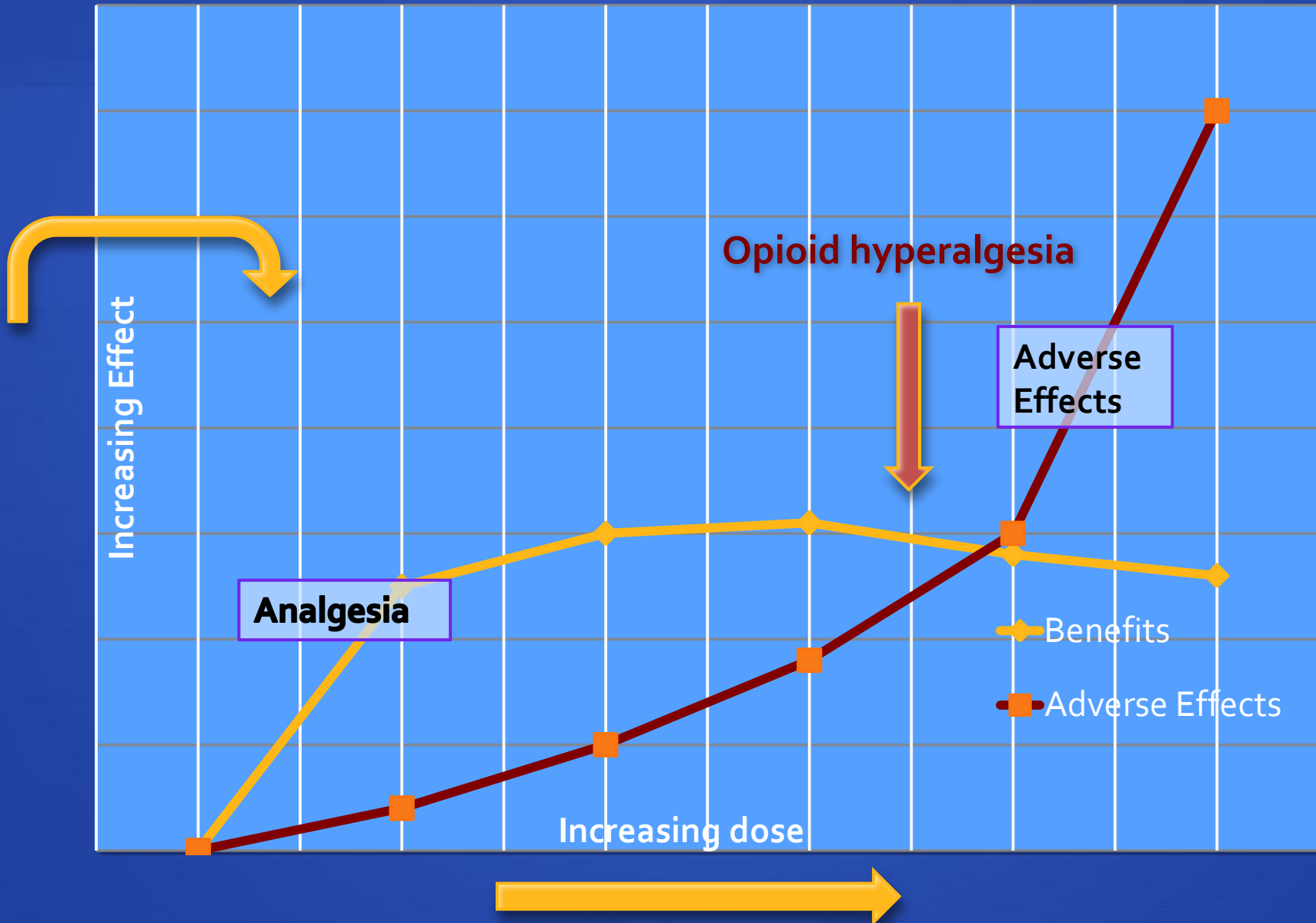
# Clinical Opioid Pharmacology

- Alters central release of neurotransmitters
  - Signal modulation
    - Direct inhibitory effects on primary nociceptive afferents and spinal dorsal neurons
- *Analgesic not anesthetic*  
“Disconnects the brain from body’s sensations”
  - Narcotize “perception of pain”
- Acute pain: Use short acting agents only!
  - No Methadone, Oxycontin®, MS ER, or Fentanyl patch
- Chronic pain: Rx short- or long-acting
  - Seek lowest total MED combination

# Opioid Trial

- Intention to assess “opioid responsiveness”
  - Analgesia
  - Activity
  - Adverse effect
  - Aberrant behavior
- Intention to discontinue/reduce when benefits  $\leq$  risks
- Opioid “Rotation”
  - When side-effects occur
  - Possibly when “Opioid Non-Responsive”

# Opioid Induced Hyperalgesia



# Opioids are part of plan, not *The* plan

“Avoid ... *primary reliance* on opioid prescribing, which, when applied *alone or in a non-coordinated* fashion, may be inadequate to effectively address persistent pain as a disease process and, *when employed as the “sole” treatment, is associated with significant societal expense and treatment failure.*”

- ABPM Pain Medicine Position Paper, Pain Medicine 2009

# Washington State Agency Medical Directors Group: Interagency Guideline on Opioid Dosing for *Chronic Non-cancer Pain*

[www.agencymeddirectors.wa.gov/guidelines.asp](http://www.agencymeddirectors.wa.gov/guidelines.asp)



- 'Take a breath' at **90 mg** MED
- 'Take 5' before exceeding **120 mg** MED dose threshold:
  - No pain management consultation if prescriber documenting sustained improvement in both *function and pain*.
  - *Consider specialty consultation if frequent adverse effects or lack of response*
    - *Significant psychological condition affecting treatment*
    - *Potential alternative treatments to reduce or discontinue use of opioids*
    - *Risk and benefit of a possible trial with opioid dose >120 mg/day MED*

# Opioid Dose Conversion\*

## “Morphine Equivalent”

Morphine 30 mg\*\*

Codeine 200 mg

Fentanyl (TD) 12.5

Hydrocodone 30 mg

Hydromorphone 6 mg

Oxycodone 20 mg

Oxymorphone 10 mg

## Methadone in MEDs

Pharmacologically  
“logarithmic”

- <30 mg = 3-4 x Morphine
- 30-40 mg = 4-6 x MS
- 40-60 mg = 10 x MS
- >60 mg = 12 x MS

\*Always reduce to ~60% of calculated value to account for “incomplete cross-tolerance.”

\*\* MS IV = PO MS x 2-3

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# MED dose converter

AMDG on-line tool

[www.agencymeddirectors.wa.gov](http://www.agencymeddirectors.wa.gov)

OPIOID DOSE CALCULATOR		
Optional:	Patient name:	
	Today's date:	March 7, 2010
Instructions:	Fill in the mg per day* for whichever opioids your patient is taking. The spreadsheet will automatically calculate the total morphine equivalents per day.	
Opioid (oral or transdermal):	mg per day*	Morphine equivalents:
codeine		0
fentanyl transdermal (in mcg/hr)		0
hydrocodone		0
hydromorphone		0
methadone		
up to 20mg per day		0
21 to 40mg per day	Since doses at or below 40mg per day are below the threshold for pain management consultation no opioid conversion calculations are necessary for this dosing range (assuming no other opioids are being taken).	
41 to 60mg per day		0
>60mg per day	80	960
morphine		0
oxycodone		0
oxymorphone		0
TOTAL daily morphine equivalent dose (MED)		
=		960
<p>* Note: All doses expressed in mg per day with exception of fentanyl transdermal, which is expressed in mcg per hour</p> <p>If this value is less than 120mg Morphine Equivalent Dose (MED), please follow Part I of the AMDG Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain. Referral for pain management consultation is recommended before exceeding 120mg MED daily. See <a href="http://www.agencymeddirectors.wa.gov/guidelines.asp">www.agencymeddirectors.wa.gov/guidelines.asp</a></p> <p>If this value is greater than 120mg MED, please follow Part II of the AMDG Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain. See <a href="http://www.agencymeddirectors.wa.gov/guidelines.asp">www.agencymeddirectors.wa.gov/guidelines.asp</a></p>		

# Methadone caveats

- Significant accumulation with repeat dosing
  - Initial  $T_{1/2}$  13-47 hrs → 48-72 hrs
- Strong  $\mu$ -agonist/ moderate NMDA-antagonist
- Weak 5-HT/NE Reuptake Blocker
- QT<sub>c</sub> prolongation
  - Dose dependent
- 50% urine elimination\*
- P-450: 1A2, 2D6, 3A4
  - Inducer ↓: carbamazepine, DPH, rifampin
  - Inhibitor ↑: amio, Ca-blockers, clarithro/erthro, itraconazole, metronidazole, HIV-antiretrovirals, fluoxetine, St John's wort, valerian, grapefruit juice

*\*like morphine, so caution for both in renal failure*

# How To Do An Opioid Trial

Trial Duration:  $\leq 90$  day

1. Start with Short-acting Rx:  
ie. hydrocodone cmpd, or  
oxycodone  $\pm$  cmpd, or morphine
2. Convert later onto long-  
acting Rx equivalents:  
ie. MS ER, Oxycontin®, or  
Methadone
3. Maximum dose MED:  
90-120 mg/day
4. Avoid benzodiazepines and  
other sedating drugs
5. Measure/Record “4 A’s”:
  - ① A: Analgesia
  - ② A: Activity
  - ③ A: Adverse Effects
  - ④ A: Aberrant Behavior
6. Taper schedule as  
indicated:  
 $\cong 10\%$  reduction every 1-2  
weeks  
*Abrupt discontinuation if UDT+  
methamphetamine/cocaine*

# Transition to Chronic Opioid Therapy

Occurs at ~ 90 days

- Make *explicit*:
  - Likely committed to *life-long* opioids
  - Continuous side-effect management issues:
    - Driving risks
    - OD risks
    - Abstinence syndrome
    - Sleep apnea
    - Hypogonadism
  - Informed consent “agreement”
  - Urine Drug Test

# Abuse and Addiction

- Abuse = Aberrant behaviors with *misuse* of drug
  - Non-prescribed use
  - Non-medical indication
  - Over-use
  - Intense desire for the drug independent of symptoms
  - Additive non-prescribed psychoactive drugs
  - Sale, share or otherwise distribute

***NOT*** “tolerance” or “withdrawal”

# Toxicology Monitoring

- Urine Drug Testing
  - Point of Service:
    - Often misses oxycodone, methadone, benzodiazepines!
  - Confirmation testing:
    - Gas Chromatography/Mass Spectroscopy (GC/MS):
  - Metabolism
    - Codeine → Morphine → Hydromorphone
    - Codeine → Hydrocodone → Hydromorphone
- Interpretation of negatives/positives
  - Compliance measurement

# Referring to a Pain Specialist

## Secondary Prevention: “Cardiology Model”

### The Algorithm

1. Chest Pain PCP evaluation
2. Suspicious for ischemic CAD
3. Cardiology Referral

Non-surgical interventional assessment

Medication or non-surgical treatment

Outcome assessment

Scheduled follow-up and support

4. Referral to CV surgeon only *if indicated*

# *Best Practice*

## Chronic Opioid Therapy for Non-Cancer Pain

1. Start with non-opioid, except acute injury prn
2. Avoid concurrent sedatives, esp. > 60-90 days
3. Monitor “4 A’s” regularly: follow-up q 30-90 day
4. Introduce Agreement and UDTs at 90 days
5. Limit dose below 100 - 120 mg MED
6. Get help early when *not going according to expectations*

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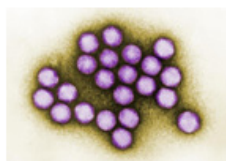
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Photo/CDC

A colorized transmission electron micrograph of adenovirus. This issue of MMWR includes a report on an outbreak of adenovirus 14 respiratory illnesses in Alaska.

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### "Choking Game" Awareness and Participation Among 8th Graders — Oregon, 2008

In 2008, CDC reported 82 deaths attributed to the "choking game" and other strangulation activities during the period 1995–2007; most victims were adolescent males aged 11–16 years. To assess the awareness and prevalence of this behavior among 8th graders in Oregon, the Oregon Public Health Division added a question to the 2008 Oregon Healthy Teens survey concerning familiarity with and participation in this activity. This report describes the results of that survey.

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### Upcoming Conference Call





**Title:** Opioid Analgesics: The Epidemiology of Misuse and Advice on Prescribing 


**Date:** August 17, 2010

**Time:** 1:00 PM – 2:00 PM (Eastern Time)

**Overview:** The United States is currently facing an epidemic of overdoses involving opioid analgesics. Most overdoses involve the misuse or abuse of these drugs. Clinicians can play a key


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